

NPDES Qualifying Local Programs (QLPs) for Construction Site Storm Water Runoff Control and Post-Construction Storm Water Management in New Development and Redevelopment

Phase II of the National Pollutant Discharge Elimination System (NPDES) stormwater regulations includes provisions allowing for further streamlining and coordination among programs at the state and local levels, particularly relating to the regulation of construction and post construction runoff. The QLP provision¹ for the management and oversight of stormwater runoff from construction activities allows for such streamlining, particularly as regulated municipalities² develop and implement their programs.

Under this provision, South Carolina Department of Health and Environmental Control Bureau of Water (SC DHEC BoW) formally recognizes a municipal program that meets or exceeds the provisions of its own construction general permit. Under such a scenario, a construction site operator, responsible for a project within the jurisdiction of a recognized municipality, would follow that municipality's requirements for stormwater management. More fully utilizing the QLP provision will increase the administrative efficiencies in the program and simplify the requirements for construction site operators.

Background:

The promulgation of the Phase I and II NPDES stormwater regulations in 1990 and 1999, respectively, established the federal requirements for the control of stormwater runoff from construction activity. These regulations established federal requirements for SC DHEC and for the municipalities in South Carolina.³ SC DHEC BoW was required to develop NPDES permits to regulate stormwater discharges associated with construction activity. Municipalities were required to develop programs to address construction site runoff within their boundaries. All of these discharges are subject to NPDES permitting requirements (CWA 402(p)).

¹ SC Water Pollution Control Permits Regulation 61-9 122.44(s) establishes the concept of a qualifying local program (QLP) for construction activity. Both Phase I and Phase II communities may be recognized as QLPs and the concept may be used to address both small and large construction. The preamble to the Phase II regulations also contains some useful discussion and examples (e.g. 64 FR 68722-68777, December 8, 1999).

² The NPDES Phase I stormwater regulations cover municipalities with populations of 100,000 or more (122.26(b)(4) & (b)(7) or otherwise designated by the Director for permit coverage. The Phase II regulations cover smaller municipalities in U.S. Census designated urbanized areas (122.26(b)(16) & 122.28(a)(1). More than 70 entities are covered by these regulations.

³ NPDES regulations require SC DHEC BoW to address stormwater discharges from construction activity (40 CFR 123.25(a)(9), SC Regulation 61-9 122.26(b)(14)(x) & 122.26(b)(15) and SC DHEC NPDES General Permit for Storm Water Discharges from Large and Small Construction Activities, SCR100000). These regulations also require regulated municipalities to develop programs to address stormwater runoff from construction sites and from post construction within their jurisdictions (122.26(d)(2)) & SC DHEC NPDES General Permit for Storm Water Discharges from Regulated Small Municipal Separate Storm Sewer Systems (MS4s) SCR030000

South Carolina Requirements for Construction

All construction sites and other activities disturbing one or more acres of land, including smaller sites that are part of a larger, common plan of development ultimately disturbing one or more acres, as defined in SC Water Pollution Control Permits Regulation 61-9 122.26(b)(14)(x) & 122.26(b)(15) are required to obtain NPDES permit coverage for their stormwater discharges. SC DHEC BoW is authorized to administer the NPDES program and has issued a general permit for these discharges.⁴ The requirements of SC DHEC NPDES General Permit for Storm Water Discharges from Large and Small Construction Activities, SCR100000 focus on developing and implementing stormwater pollution prevention plans (SWPPPs). An application called Notice of Intent, NOI, is required from storm water dischargers prior to being granted coverage under the permit.

In addition to the NPDES Stormwater program, SC DHEC administers the SC Stormwater Management and Sediment Reduction Regulations 72-300 et. Seq. under the authority conferred by the Stormwater Management and Sediment Reduction Act of 1991. SC Regulation 72-300 et. seq. contains specific design criteria, technical standards and specifications among other requirements for approval of site construction plans. The level of review is specified for projects disturbing more than two but less than five acres and for projects disturbing five acres or more. The criteria, standards and specifications incorporated by reference into NPDES permit coverages granted under SCR100000 statewide are enforced through inspections and enforcement procedures if needed. The stormwater management and sediment reduction standards can be delegated to local governments through a formal process with the regulatory oversight being the responsibility of SC DHEC BoW.

At the time of this writing, two NPDES phase I medium MS4s, eight automatically designated and one potentially designated phase II small MS4s are delegated under the SC Stormwater Management and Sediment Reduction Regulation 72-300 et. Seq. In addition to these, fifteen regulated phase II small MS4s that are located inside the geopolitical jurisdictional boundaries of entities already delegated under 72-300 et. Seq. have expressed their interest in deferring to an already delegated entity their Construction and Post Construction Minimum Control Measures (MCMs). These small MS4s should seek delegation under SC Regulation 72-300 et. Seq. no later than December 29, 2006

In the eight coastal counties, Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Horry, and Jasper, refinements to the 72-300 standards contained in Appendix B, Chapter III.C.3.XIII contain additional measures to adequately protect water quality. Stormwater runoff storage, proximity to water bodies, bridge runoff, golf courses, mines and landfills are addressed by these refinements. SC DHEC Office of Ocean Coastal Resource Management (OCRM) assists BoW in the review of these plans prior to NPDES coverage being granted. These refinements are part of the Coastal Zone Management Program (CZMP) required under the

⁴ SC DHEC Bureau of Water is the NPDES permitting authority in SC and is ultimately responsible for granting coverage and administering the NPDES General Permit for Storm Water Discharges from Large and Small Construction Activities, SCR100000.

authority of the Section 6217(g) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) and under Section 306 of the Coastal Zone Management Act (CZMA) that specifies management measures for sources of nonpoint pollution in coastal waters in order to avoid coastal water quality impacts.

Municipal-Level Requirements for Construction

In urban areas where construction activity is concentrated, the stormwater regulations also require regulated municipalities to develop and implement programs that provide a broader level of review and oversight of construction activities. Regulated municipalities are encouraged to tailor their programs to meet local needs. At a minimum, requirements imposed by municipalities on construction sites reference or mirror the requirements contained in the construction permit, SCR100000 issued by SC DHEC BoW. The primary responsibility of these municipalities is to review and approve the erosion and sediment control plans (that are part of the SWPPPs mentioned above) in advance of construction. The regulations also specify that local governments are to inspect sites to ensure compliance with erosion and sediment control requirements and to ensure that corrective actions are taken when needed to protect water quality. In addition, construction site operators are required per SC Regulation 61-9 122.26(a)(4) to provide basic information about their activities to large and medium municipal separate sewer systems (MS4s).

In plain English, the steps that a construction site operator would take are as follows:

A construction site owner or operator who is developing a site outside the jurisdiction of a stormwater Phase I or II community:

- \$ Reads the NPDES construction general permit, SCR100000,
- \$ Develops a SWPPP as part of an NOI to be covered under SCR100000
- \$ Files for NPDES permit coverage under SCR100000 with SC DHEC BoW,
- \$ After, and only after, permit coverage under SCR100000 has been granted, begins to implement provisions of that SWPPP as permitted.

A construction site operator developing a site within the jurisdiction of a stormwater Phase I, or a Phase II NPDES regulated community also:

- \$ Checks with the municipality for any requirements, in addition to SCR100000, to be included in the SWPPP,
- \$ Submits the developed erosion and sediment control plan (or entire SWPPP) to the municipality for review and approval,
- \$ The approval along with the application and fees is filed by the MS4 with SC DHEC BoW for NPDES coverage under SCR100000,
- \$ After, and only after, permit coverage under SCR100000 has been granted, begins to implement provisions of that SWPPP as permitted.

Discussion:

Eleven (11) municipalities have, or have had, sediment and erosion control programs in place prior to either being issued their NPDES Phase I stormwater permits, or prior to being granted coverage under the phase II small MS4 permit SCR030000. In addition to this, fifteen regulated small MS4s have expressed interest in obtaining delegated authority under SC Regulation 72-300 et. seq. by July 1, 2007. There is also a small MS4 covered under the general permit provisions of SC Regulation 72-307.G. This brings a grand total of twenty seven (27) medium and small MS4s actually implementing the specific design criteria, technical standards and specifications to be met while reviewing site construction plans for consistency with SC Regulation 72-300 et. seq. However, most municipalities, particularly the smaller municipalities included in Phase II, do not have this delegated review authority. In addition, the MS4s already delegated under SC Reg. 72-300 et. seq. must upgrade their existing program to meet the requirements of SCR100000 and the phase II MS4 requirements of SC Reg. 61-9 122.34(b)(4) & (5) specified in parts 4.2.4, 4.2.5 and 4.4 (if needed) of the SC DHEC NPDES General Permit for Storm Water Discharges from Regulated Small Municipal Separate Storm Sewer Systems (MS4s), SCR030000. NPDES stormwater regulations were developed to accommodate the wide range of experience and expertise existing throughout the State. To recognize those municipalities with existing stormwater programs and those that will develop them in the near future, the QLP concept is included in SC Regulation 61-9 122.44(s). To accommodate those communities with less advanced or non existent programs, all regulated MS4s covered by Phase I and Phase II NPDES MS4 permit requirements have until September 1, 2007 to implement a Construction and Post Construction Site Stormwater Runoff program fully enforceable according to NPDES qualifying criteria.

SC Regulation 61-9 122.44(s) provides authority to SC DHEC to recognize Phase I and Phase II MS4 construction programs that meet or exceed its own construction program. When a local sediment and erosion control program meets the requirements in 122.44(s), SC DHEC BoW may incorporate that program, in this case the NPDES General Permit for Storm Water Discharges from Large and Small Construction Activities, SCR100000, by reference in the MS4 program for construction and post construction activities. In this way, the local program becomes a QLP and construction site operators' compliance with the local requirements constitutes compliance with the state's NPDES permit requirements. SC DHEC BoW then recognizes the MS4's construction and post-construction programs as QLPs.

Implementation:

SC DHEC BoW focuses on Phase I and II communities with programs that meet or exceed the relevant requirements and have the institutional capacity to take on these responsibilities. SC DHEC BoW carefully reviews each potential QLP and incorporates provisions in their permits. Further, SC DHEC BoW will combine the annual reporting process and its authority in overseeing regulated municipal stormwater programs to improve municipal construction management programs to the point that they can be recognized as QLPs. SC DHEC BoW wants to clarify and to advance the QLP concept.

By July 1, 2007, there could be as many as 27 MS4s delegated under SC Reg. 72-300 et. seq. Also, specific design criteria, technical standards and specifications contained in SC Reg. 72-300 et. seq. have to be met prior to becoming covered under the SC DHEC NPDES General Permit for Storm Water Discharges from Large and Small Construction Activities, SCR100000, everywhere in the State of South Carolina. All MS4s have to meet the NPDES Construction Site Storm Water Runoff Control and Post-Construction Storm Water Management in New Development and Redevelopment requirements for Phase II MS4s.

MS4s located in any coastal counties must address any Construction Site Storm Water Runoff Control and Post-Construction Storm Water Management in New Development and Redevelopment requirements contained in the Coastal Nonpoint Pollution Control Programs including, but not limited to, the CZMP issued under CZARA and CZMA and its refinements for stormwater management regulations contained in Appendix B, Chapter III.C.3.XIII prior to being qualified for NPDES MS4 permit coverage.

QLPs for Construction Site Storm Water Runoff Control and the Post-Construction Storm Water Management in New Development and Redevelopment MCMs must meet the following requirements:

- 1) Plan review and approval must meet the specific design criteria, technical standards and specifications contained in SC Reg. 72-300 et. seq. whether or not the MS4 program elements are delegated under this regulation.
- 2) Plan review and approval must meet the requirements contained in SC DHEC NPDES General Permit for Storm Water Discharges from Large and Small Construction Activities, SCR100000.
- 3) The Construction Site Storm Water Runoff Control and the Post-Construction Storm Water Management in New Development and Redevelopment program becomes an NPDES QLP once the requirements under Parts 4.2.4, 4.2.5 and 4.4 (if needed) of the SC Water Pollution Control Permits Regulation 122.34(b) implemented through SC DHEC NPDES General Permit for Storm Water Discharges from Regulated Municipal Separate Storm Sewer Systems (MS4s), SCR030000 are developed implemented and fully enforced by September 1, 2007.
- 4) For MS4s located in any coastal counties, the NPDES QLP must address all Construction

NPDES QLPs for Construction Site Storm Water Runoff Control and Post-Construction Storm Water Management in New Development and Redevelopment

Site Storm Water Runoff Control and Post-Construction Storm Water Management in New Development and Redevelopment requirements contained in any Coastal Nonpoint Pollution Control Programs including, but not limited to, the CZMP issued under CZARA and CZMA with the refinements for stormwater management regulations outlined under Appendix B, Chapter III.C.3.XIII. The NPDES QLP must be developed, implemented, and fully enforced by September 1, 2007.

Several states have already implemented Construction Site Storm Water Runoff Control and Post-Construction Storm Water Management in New Development and Redevelopment QLPs successfully. SC MS4s are implementing the QLP concept as follows;

Construction Site Storm Water Runoff Control and the Post-Construction Storm Water Management in New Development and Redevelopment MCMs Timetable.

December 29, 2006	In order to reserve this option, an MS4s seeking delegation under the SC Stormwater Management and Sediment Reduction Regulation 72-300 et. seq. must have their delegation request submitted no later than this date. Sample letters are enclosed. <u>NOTE:</u> The request may be withdrawn at any time.
February 22, 2007	<u>M A N D A T O R Y</u> meeting for all MS4s to attend at Peeple's Auditorium, SC DHEC, 2600 Bull Street, Columbia, from 10 AM to 2 PM for all Construction and Post Construction Site Stormwater Runoff QLPs.
March 1, 2007	All requirements from SC 72-304.D, including the remainder of SC Reg. 72-300 et. seq., SCR100000 and Parts 4.2.4, 4.2.5 and 4.4 (if needed) of SCR030000 plus Coastal Nonpoint Pollution Control Programs including, but not limited to, the CZMP issued under CZARA and CZMA and Appendix B, Chapter III.C.3.XIII, if in the coast, must be submitted.
July 1, 2007	Programs delegated under SC Regulation 72-300 et. seq. become effective.
September 1, 2007	All NPDES QLPs implemented and fully enforced by this date.

If you need more information on QLPs for Construction Site Storm Water Runoff Control and Post-Construction Storm Water Management in New Development and Redevelopment, please contact J. Rick Nuzum at 803-898-4034 or nuzumjr@dhec.sc.gov

CURRENT STATUS	NEEDED ACTION	TIMEFRAME
MS4s with 72-300 delegated programs	Incorporate all NPDES Qualifying Local Programs (QLPs) requirements into the existing delegated program	Attend mandatory meeting on February 22, 2007. Updated program received by Rick no later than May 1 st , 2007. QLPs in full force by September 1, 2007
MS4s without 72-300 delegated programs relying on delegated programs to implement their construction and post construction MCMs.	Submit executed sample letter requesting delegation to Rick by Dec. 29, 2006	All Inter Local Agreements (ILAs) and necessary documentation to support Part 4.4 of SCR030000 must be received by February 15, 2007. Attend mandatory meeting on February 22, 2007. 72-300 delegation approved on April 1, effective July 1 and Qualified Local Programs (QLPs) in full force by September 1, 2007
MS4s without 72-300 delegated programs considering delegation	Submit executed sample letter requesting delegation to Rick by Dec. 29, 2006	Attend mandatory meeting on February 22, 2007. QLPs received by Rick no later than March 1 st , 2007. 72-300 delegation approved on April 1, effective July 1 and QLPs in full force by September 1, 2007
MS4s considering not to pursue 72-300 delegation	Consider submitting executed sample letter requesting delegation to Rick by Dec. 29, 2006, request may be withdrawn	Attend mandatory meeting on February 22, 2007. QLPs received by Rick no later than May 1 st , 2007. QLPs in full force by September 1, 2007

[[December 29, 2006, or earlier, if at all possible]]

Mr. J. Rick Nuzum, PE
SC DHEC Bureau of Water
2600 Bull St.
Columbia SC 29201-1708
803 898-4034

Dear Rick,

This letter serves to request delegation of the stormwater management and sediment control program to **[[relying MS4]]** for the fiscal year starting July 1, 2007.

It is understood that prior to March 30, 2007, **[[MS4]]** will be able to demonstrate its ability to comply with the Criteria for Delegation of Program Elements specified in SC Stormwater Management and Sediment Reduction Regulations 72-304.D by the delegated date of July 1, 2007. This is in support of the necessary requirements of the SC DHEC NPDES General Permit for Storm Water Discharges from Large and Small Construction Activities SCR100000.

Please find enclosed the executed Inter Local Agreement for the **[[relying MS4]]** stormwater management and sediment control program to be implemented by **[[implementing MS4]]** as part of the Construction Site Storm Water Runoff Control and Post-Construction Storm Water Management in New Development and Redevelopment measures of the storm water management plan required under SC DHEC NPDES Permit for Storm Water Discharges from **(MS4s)** SCSXX0001 to be developed, implemented and fully enforced on, or before, the date required by the permit

Looking forward to the delegation of the stormwater management and sediment control program to the **[[MS4]]**, I remain,

Sincerely yours

[[SC Water Pollution Control Permits Regulation 61-9 122.22(a)(3) signature]]

Enclosure

[[December 29, 2006, or earlier, if at all possible]]

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SC DHEC Bureau of Water
2600 Bull St.
Columbia SC 29201-1708
803 898-4034

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It is understood that prior to March 30, 2007, **[[MS4]]** will be able to demonstrate its ability to comply with the Criteria for Delegation of Program Elements specified in SC Stormwater Management and Sediment Reduction Regulations 72-304.D by the delegated date of July 1, 2007. This is in support of the necessary requirements of the SC DHEC NPDES General Permit for Storm Water Discharges from Large and Small Construction Activities SCR100000.

Please advise us to the necessary steps to be taken by the **[[MS4]]** stormwater management and sediment control program to be qualified to perform the Construction Site Storm Water Runoff Control and Post-Construction Storm Water Management in New Development and Redevelopment minimum control measures MCM of the **[[MS4]]** storm water management plan SWMP required under SC DHEC NPDES General Permit for Storm Water Discharges from Regulated Municipal Separate Storm Sewer Systems (MS4s) SCR030000 to be developed, implemented and fully enforced on, or before, September 1, 2007.

Looking forward to the delegation of the stormwater management and sediment control program to the **[[MS4]]**, I remain,

Sincerely yours

[[SC Water Pollution Control Permits Regulation 61-9 122.22(a)(3) signature]]

Enclosure

[[December 29, 2006, or earlier, if at all possible]]

Mr. J. Rick Nuzum, PE
SC DHEC Bureau of Water
2600 Bull St.
Columbia SC 29201-1708
803 898-4034

Dear Rick,

This letter serves to request delegation of the stormwater management and sediment control program to the **[[MS4]]** for the fiscal year starting July 1, 2007.

It is understood that prior to March 30, 2007, **[[MS4]]** will be able to demonstrate its ability to comply with the Criteria for Delegation of Program Elements specified in SC Stormwater Management and Sediment Reduction Regulations 72-304.D by the delegated date of July 1, 2007. This is in support of the necessary requirements of the SC DHEC NPDES General Permit for Storm Water Discharges from Large and Small Construction Activities SCR100000.

Please advise us to the necessary steps to be taken by the **[[MS4]]** stormwater management and sediment control program to be qualified to perform the Construction Site Storm Water Runoff Control and Post-Construction Storm Water Management in New Development and Redevelopment minimum control measures of the **[[MS4]]** storm water management plan SWMP required under SC DHEC NPDES General Permit for Storm Water Discharges from Regulated Municipal Separate Storm Sewer Systems (MS4s) SCR030000 to be developed, implemented and fully enforced on, or before, September 1, 2007.

Looking forward to the delegation of the stormwater management and sediment control program to the **[[MS4]]**, I remain,

Sincerely yours,

[[SC Water Pollution Control Permits Regulation 61-9 122.22(a)(3) signature]]

Enclosure

cc. Barbara Neal, SC DHEC OCRM, 1362 McMillian Ave Suite 400, Charleston, SC 29405 **[[FOR MS4S IN THE COASTAL AREA]]**

SC Water Pollution Control Permits Regulation 122.26(d)(2)(iv)

Proposed management program. A proposed management program covers the duration of the permit. It shall include a comprehensive planning process which involves public participation and where necessary intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable using management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate. The program shall also include a description of staff and equipment available to implement the program. Separate proposed programs may be submitted by each co-applicant. Proposed programs may impose controls on a system-wide basis, a watershed basis, a jurisdiction basis, or on individual outfalls. Proposed programs will be considered by the Department when developing permit conditions to reduce pollutants in discharges to the maximum extent practicable. Proposed management programs shall describe priorities for implementing controls. Such programs shall be based on:

- (A) A description of structural and source control measures to reduce pollutants from runoff from commercial and residential areas that are discharged from the municipal storm sewer system that are to be implemented during the life of the permit, accompanied with an estimate of the expected reduction of pollutant loads and a proposed schedule for implementing such controls. At a minimum, the description shall include:
 - (1) A description of maintenance activities and a maintenance schedule for structural controls to reduce pollutants (including floatables) in discharges from municipal separate storm sewers;
 - (2) A description of planning procedures including a comprehensive master plan to develop, implement and enforce controls to reduce the discharge of pollutants from municipal separate storm sewers which receive discharges from areas of new development and significant redevelopment. Such plan shall address controls to reduce pollutants in discharges from municipal separate storm sewers after construction is completed. (Controls to reduce pollutants in discharges from municipal separate storm sewers containing construction site runoff are addressed in paragraph (d)(2)(iv)(D) of this section;
 - (3) A description of practices for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems, including pollutants discharged as a result of deicing activities;
 - (4) A description of procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies and that existing structural flood control devices have been evaluated to determine if retrofitting the device to provide additional pollutant removal from storm water is feasible;

SC Water Pollution Control Permits Regulation 122.34(b) through SC DHEC NPDES

General Permit for Storm Water Discharges from Regulated Municipal Separate Storm Sewer Systems (MS4s), SCR030000

4.2.4 Construction Site Storm Water Runoff Control

4.2.4.1 *Permit requirement.* Within eighteen months from the effective date of this permit, you must develop, implement, and enforce a program to reduce pollutants in any storm water runoff to your regulated SMS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of pollutants in storm water discharges from construction activity disturbing less than one acre must be included in your program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. Your program must include the development and implementation of, at a minimum:

- 4.2.4.1.1 An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State, Tribal, or local law;
- 4.2.4.1.2 Requirements for construction site operators to implement appropriate erosion and sediment control BMPs;
- 4.2.4.1.3 Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
- 4.2.4.1.4 Procedures for site plan review, which incorporate consideration of potential water quality impacts;
- 4.2.4.1.5 Procedures for receipt and consideration of information submitted by the public; and
- 4.2.4.1.6 Procedures for site inspection and enforcement of control measures.

4.2.4.2 *Decision process.* You must document your decision process for the development of a construction site storm water control program. Such documentation may be included in your permit application, your SWMP, or your annual report submitted pursuant to Section 5 of this permit. If this information is not included in your permit application, your SWMP, or your annual report submitted pursuant to Section 5 of this permit, you must develop a rationale statement that addresses your overall construction site storm water control program and the individual BMPs, measurable goals, and responsible persons for your program. The rationale statement must include the following information, at a minimum:

- 4.2.4.2.1 The mechanism (ordinance or other regulatory mechanism) you will use to require erosion and sediment controls at construction sites and why you chose that mechanism. If you need to develop this mechanism, describe your plan and a

schedule to do so. If your ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with your SWMP description.

- 4.2.4.2.2 Your plan to ensure compliance with your erosion and sediment control regulatory mechanism, including the sanctions and enforcement mechanisms you will use to ensure compliance. Describe your procedures for when you will use certain sanctions. Possible sanctions include non-monetary penalties (such as stop work orders), fines, bonding requirements, and/or permit denials for non-compliance.
- 4.2.4.2.3 Your requirements for construction site operators to implement appropriate erosion and sediment control BMPs and control waste at construction sites that may cause adverse impacts to water quality. Such waste includes discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste.
- 4.2.4.2.4 Your procedures for plan review, including the review of pre-construction site plans, which incorporate consideration of potential water quality impacts. For construction projects that disturb 25 acres or more and discharge the pollutant or pollutants of concern to a water on the South Carolina 303(d) List of Impaired Waters, the Stormwater Pollution Prevention Plans prepared by applicants for construction sites that you review must contain a written quantitative and qualitative assessment showing that the BMPs selected will control the construction and post construction stormwater discharges so that the stormwater discharges will not cause or contribute to a violation of water quality standards.

A copy of the most current 303(d) List of Impaired Waters can be obtained from:

Water Quality Division
Bureau of Water
SC DHEC
2600 Bull Street
Columbia, SC 29201

or it can be downloaded at the following DHEC WEB site:

www.scdhec.gov/water/html/tmdl.html

- 4.2.4.2.5 Your procedures for receipt and consideration of information submitted by the public. Consider coordinating this requirement with your public education program.
- 4.2.4.2.6 Your procedures for site inspection and enforcement of control measures, including how you will prioritize sites for inspection.
- 4.2.4.2.7 Who is responsible for overall management and implementation of your construction site storm water control program and, if different, who is responsible for each of the BMPs identified for this program.

- 4.2.4.2.8 Describe how you will evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.
- 4.2.4.3 For SMS4 which submitted an application before the effective date of this general permit, you must implement your local construction site storm water runoff control program in your entire regulated SMS4 area within eighteen months of the effective date of this permit.

4.2.5 Post-Construction Storm Water Management in New Development and Redevelopment

4.2.5.1 *Permit requirement.* You must:

- 4.2.5.1.1 Within eighteen months from the effective date of this permit, develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into your regulated SMS4. Your program must ensure that controls that would prevent or minimize water quality impacts are in place;
- 4.2.5.1.2 Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for your community; and
- 4.2.5.1.3 Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, Tribal or local law (see also Section 4.2.4.2.4); and
- 4.2.5.1.4 Ensure adequate long-term operation and maintenance of BMPs.

4.2.5.2 *Decision process.* You must document your decision process for the development of a post-construction SWMP. Such documentation may be included in your permit application, your SWMP, or your annual report submitted pursuant to Section 5 of this permit. If this information is not included in your permit application, your SWMP, or your annual report submitted pursuant to Section 5 of this permit, you must develop a rationale statement that addresses both your overall post-construction SWMP and the individual BMPs, measurable goals, and responsible persons for your program. The rationale statement must include the following information, at a minimum:

- 4.2.5.2.1 Your program to address storm water runoff from new development and redevelopment projects. Include in this description any specific priority areas for this program.
- 4.2.5.2.2 How your program will be specifically tailored for your local community, minimize water quality impacts, and attempt to maintain pre-development runoff conditions.

4.2.5.2.3 Any non-structural BMPs in your program, including, as appropriate:

4.2.5.2.3.1 Policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space (including a dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation.

4.2.5.2.3.2 Policies or ordinances that encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure;

4.2.5.2.3.3 Education programs for developers and the public about project designs that minimize water quality impacts; and

4.2.5.2.3.4 Other measures such as: minimization of the percentage of impervious area after development, use of measures to minimize directly connected impervious areas, and source control measures often thought as good housekeeping, preventive maintenance and spill prevention.

4.2.5.2.4 Any structural BMPs in your program, including, as appropriate:

4.2.5.2.4.1 Storage practices such as wet ponds, and extended-detention outlet structures;

4.2.5.2.4.2 Filtration practices such as grassed swales, bioretention cells, sand filters and filter strips; and,

4.2.5.2.4.3 Infiltration practices such as infiltration basins and infiltration trenches.

4.2.5.2.5 What are the mechanisms (ordinance or other regulatory mechanisms) you will use to address post-construction runoff from new developments and redevelopments and why did you choose that mechanism. If you need to develop a mechanism, describe your plan and a schedule to do so. If your ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with your program.

4.2.5.2.6 How you will ensure the long-term operation and maintenance (O&M) of your selected BMPs. Options to help ensure that future O&M responsibilities are clearly identified include an agreement between you and another party such as the post-development landowners or regional authorities.

4.2.5.2.7 Who is responsible for overall management and implementation of your post-construction SWMP and, if different, who is responsible for each of the BMPs identified for this program.

4.2.5.2.8 How you will evaluate the success of this minimum measure.

4.2.5.3 For SMS4s who submitted an application before the effective date of this general permit, you must implement your local post construction storm water management program in your entire regulated SMS4 area within eighteen months of the effective date of this permit.

4.4 Sharing Responsibility.

Implementation of one or more of the minimum measures may be shared with another entity, or the entity may fully take over the measure. You may rely on another entity only if:

4.4.1 The other entity in fact, implements the control measure.

4.4.2 The particular control measure, or component of that measure, is at least as stringent as the corresponding permit requirement.

4.4.3 The other entity agrees to implement the control measure on your behalf. Written acceptance of this obligation is expected. This obligation must be maintained as part of the description of your SWMP. If the other entity agrees to report on the minimum measure, you must supply the other entity with the reporting requirements contained in Section 5.3 of this permit. If the other entity fails to implement the control measure on your behalf, then you remain liable for any discharges due to that failure to implement.

SC Water Pollution Control Permits Regulation 122.44(s)
Qualifying State, Tribal, or local programs.

- (1) For storm water discharges associated with small construction activity identified in section 122.26(b)(15), the Director may include permit conditions that incorporate qualifying State, Tribal, or local erosion and sediment control program requirements by reference. Where a qualifying State, Tribal, or local program does not include one or more of the elements in this paragraph (s)(1), then the Director must include those elements as conditions in the permit. A qualifying State, Tribal, or local erosion and sediment control program is one that includes:
 - (i) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;
 - (ii) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
 - (iii) Requirements for construction site operators to develop and implement a storm water pollution prevention plan. (A storm water pollution prevention plan includes site descriptions, descriptions of appropriate control measures, copies of approved State, Tribal or local requirements, maintenance procedures, inspection procedures, and identification of non-storm water discharges); and
 - (iv) Requirements to submit a site plan for review that incorporates consideration of potential water quality impacts.
- (2) For storm water discharges from construction activity identified in section 122.26(b)(14)(x), the Director may include permit conditions that incorporate qualifying State, Tribal, or local erosion and sediment control program requirements by reference. A qualifying State, Tribal or local erosion and sediment control program is one that includes the elements listed in paragraph (s)(1) of this section and any additional requirements necessary to achieve the applicable technology-based standards of “best available technology” and “best conventional technology” based on the best professional judgment of the permit writer.

- 68725 imperviousness 5%, TSS 10x POTW (76-3,200), FC 21,000 mean (1,600 – 250,000), Cu (1.41 mg/L), O&G (110 mg/L)
- 68727 Streets (TSS 500-800 mg/L), lawns (TSS 600mg/L), residential (FC 34,000 – 92,000 cfu/100 mL) Beach closures advisories, 57% higher rate of illness in swimmers who swim adjacent to storm drains than in swimmers who swim more than 400 yards away from storm drains. There is a relationship between gastrointestinal illness in swimmers and water quality, the latter of which can be heavily compromised by polluted storm water discharges.
- 68728 The interconnected process of erosion sediment transport and delivery is the primary pathway for introducing key pollutants, such as nutrients (particularly phosphorous), metals and organic compounds into aquatic systems. Siltation is the largest cause of impaired water quality in rivers and the third largest cause of impaired water quality in lakes. Construction site discharges were a source of pollution in 6% of impaired rivers, 11% of impaired lakes and 11% of impaired estuaries.
- 68729 Suspended sediment concentration from housing construction 500-3,000 mg/L. However during peak, such concentration reaches up to 15,000 – 20,000 mg/L during moderate events and up to 60,000 mg/L in larger events. Road construction yields 37 tons/acre per 2 years. The average annual suspended sediment yield ranges from 7 to 100 tons/acre.
- 68730 Siltation threatens public water supply, recreation and propagation of fish and wildlife by depositing high concentrations of pollutants in public water supplies; by decreasing the depth of a water body, which reduces the volume of a reservoir resulting in limited use of a water body, or water course by boaters, swimmers and recreational enthusiasts; and, by directly impairing the habitat of fish and other aquatic species, which can limit their ability to reproduce. Sediment from construction activity causes turbidity and reduced light penetration diminishing aquatic insect communities by up to 85% and fish by 40%. Water quality impact from small construction sites is as high or higher than the impact from larger sites on a per acre basis ranging from 20 – 150 tons/acre/year.
- 68731 The most effective construction runoff control programs rely on local plan review and field enforcement.
- 68734 Coastal Nonpoint Pollution Control Programs are not required to address sources regulated under NPDES, specifically small MS4s and Construction
- 68742 Support the concept of “smart growth” by encouraging policies that limit the adverse impacts of growth and development on water quality.
- 68747 SC DHEC Bureau of Water is responsible for overseeing the local municipal programs.
- 68753 Develop, implement and enforce to the MEP, to protect WQ and to satisfy the CWA.
- 68758 Pollutants found on Construction Site Runoff include, but are not limited to, phosphorous and nitrogen, pesticides, petroleum derivatives, construction chemicals and solid waste.

68759 non-monetary penalties, monetary fines, bonding requirements and denial of future and all local permits. Minimization of impervious areas to 5% or less, maintenance or restoration of natural infiltration, wetland protection, use of vegetated drainage ways and use of riparian buffers.

68760 “Redevelopment” is alteration of a property that changes the “footprint” of a site or building in such way that results in a disturbance of equal or greater than 1 acre of land.. Exterior remodeling would not be expected to cause adverse storm water quality impacts and offer no new opportunity to storm water controls. BMPs should be appropriate for the local community, minimize water quality impacts and maintain pre-development runoff conditions. Use watershed planning and analysis tools.

The term “combination” of structural and / or non structural BMPs is meant to emphasize that multiple BMPs should be considered and adopted for use in the community. A single BMP cannot significantly reduce pollutant loads from all sources. The BMPs chosen should: (1) Be appropriate for the local community; (2) minimize water quality impacts; and (3) maintain pre-development runoff conditions. Each new development and redevelopment should have a BMP component.

Non-structural BMPs are preventative actions involving management and source controls such as:

- (1) Policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and / or increase open space (including a dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation;
- (2) policies or ordinance that encourages infill development in higher density urban areas, and areas with existing storm sewer infrastructure;
- (3) education programs for developers and the public about project designs that minimize water quality impacts; and
- (4) other measures such as minimization of the percentage of impervious area after development, use of measures to minimize directly interconnected impervious areas, and source control measures often thought of as good housekeeping, preventive maintenance and spill prevention.

Structural BMPs include:

- (1) Storage practices such as wet ponds and extended-detention outlet structures;
- (2) filtration practices such as grassed swales, sand filters and filter strips; and
- (3) infiltration practices such as infiltration basins and infiltration trenches.

MS4 operators ensure the appropriate implementation of the structural BMPs by considering some of the following:

- (1) Pre-construction review of BMP designs;
- (2) Inspections during construction to verify BMPs are built as designed;
- (3) Post-construction inspection and maintenance of BMPs;
- (4) Sanctions to ensure compliance with design, construction or operation; and

maintenance (O&M) requirements of the program.

Stormwater discharges associated with industrial activity as identified in SC Regulation 61-9 122.26(b)(14)(i-ix) & (xi) may not be infiltrated per 40 CFR 144.12. Please contact Rob Devlin, devlinrj@dhec.sc.gov, (803) 898-2798 for any doubts you may have while infiltrating stormwater runoff.

68761 “Pre-development” refers to runoff conditions that exist onsite immediately before the planned development activities occur. The intent of the permit is to prevent water quality impacts resulting from increased discharge of pollutants which may result from increased volume of runoff. Consideration of the increased flow rate, velocity and energy of storm water discharges following development unavoidably must be taken into consideration in order to reduce the discharge of pollutants, to meet water quality standards and to prevent degradation of receiving streams. MS4s will consider these factors when developing their post-construction storm water management programs as land use planning is within the authority of local governments.

68772 The one acre threshold is reasonable for accomplishing the water quality goals of the CWA section 402(p)(6) because it results in 97.5% of the total acreage disturbed by construction being designated for coverage by the NPDES storm water program.

Discharges from small construction activity are regulated under 402(p)(6) to ensure that regulation of these sources is water quality sensitive and is based on potential for “predicted water quality impairments.”

68773 A “larger common plan of development or sale” means a contiguous area where multiple separate and distinct construction activities are planned to occur at different times on different schedules under one plan, *e.g.* a housing development of five ¼ acre lots (122.26(b)(15)(i))

The water quality impact from small construction sites is as high as or higher than the impact from larger sites on a per acre basis.

Effective protection of water quality depends as much on simplicity in implementation as it does on the scientific information underlying the regulatory criteria.

Chapter III Management of Coastal Resources

C. Uses of Management Concern

3. Resource Policies

XIII. Stormwater Management Guidelines (Page III-74)

Most land disturbing activities in South Carolina must comply with the requirements and applicable regulations of the Erosion and Sediment Reduction Act of 1983 (48-18-10, et. seq.), or the Stormwater Management and Sediment Reduction Act of 1991 (48-14-10, et. seq.). The final regulations, effective on June 26, 1992, pursuant to the Stormwater Management and Sediment Reduction Act of 1991, establish the procedure and minimum standards for a statewide stormwater program. Section R.72-304F of the regulations states that "the S.C. Coastal Council (now known as the Office of Ocean and Coastal Resource Management (OCRM)), in coordination with the Commission, will serve as the implementing agency for these regulations in the jurisdictions of the local governments which do not seek delegation of program elements in the counties of Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Horry and Jasper." In addition, Section R.72-307.C.(5)(g) states that "For activities in the eight coastal counties, additional water quality requirements may be imposed to comply with the S.C. Coastal Council (OCRM) Stormwater Management Guidelines. If conflicting requirements exist for activities in the eight coastal counties, the S.C. Coastal Council (OCRM) guidelines will apply."

Pursuant to the Coastal Zone Management Act, the Coastal Council (OCRM) is responsible for protecting the environmentally sensitive areas of our coast. While the regulations of the Stormwater Management and Sediment Reduction Act adequately address most nonpoint source pollution problems, the need exists for establishing additional criteria to protect sensitive coastal waters.

A. Stormwater Runoff Storage Requirements

The regulations of the Stormwater Management and Sediment Reduction Act require that "permanent water quality ponds having a permanent pool shall be designed to store and release the first 1/2 inch of runoff from the site over a 24-hour period. The storage volume shall be designed to accommodate, at least, 1/2 inch of runoff from the entire site." For all projects, regardless of size, which are located within one-half (1/2) mile of a receiving waterbody in the coastal zone, this criteria shall be storage of the first 1/2 inch of runoff from the entire site or storage of the first one (1) inch of runoff from the built-upon portion of the property, whichever is greater. Storage may be accomplished through retention, detention or infiltration systems, as appropriate for the specific site. In addition, for those projects which are located within 1,000 (one thousand) feet of shellfish beds, the first one and one half (1 1/2) inches of runoff from the built-upon portion of the property must be retained on site.

Receiving waterbodies include all regularly tidally influenced salt and freshwater marsh areas, all lakes or ponds which are used primarily for public recreation or a public drinking water supply, and other water bodies within the coastal zone, excluding wetlands, swamps, ditches and stormwater management ponds which are not contiguous via an outfall or similar structure with a tidal water body.

B. Project Size Requiring Stormwater Management Permits

Section R.72-305.B.(1) states that "for land disturbing activities involving two (2) acres or less of actual land disturbance which are not part of a larger common plan of development or sale, the person responsible for the land disturbing activity shall submit a simplified stormwater management and sediment control plan meeting the requirements of R.72-307H. This plan does not require preparation or certification by the designers specified in R.72-305H and R.72-305I." Due to the potentially damaging effect of certain projects of less than two (2) acres of land disturbance, stormwater management and sediment reduction plan submittal and regulatory approval shall be required for those smaller projects located within 1/2 mile of a receiving waterbody. Single family homes that are not part of a subdivision development are exempt from this requirement.

C. Stormwater Management Requirements for Bridge Runoff

The following is the criteria used to address stormwater management for bridges traversing saltwater and/or critical areas.

- (1) No treatment is necessary for runoff from bridge surfaces spanning SB or SA waters. This runoff can be discharged through scupper drains directly into surface waters. However, the use of scupper drains should be limited as much as feasibly possible.
- (2) If the receiving water is either ORW or SFH then the stormwater management requirements shall be based on projected traffic volumes and the presence of any nearby shellfish beds. The following matrix lists the necessary treatment practices over the different classes of receiving waters.
- (3) The Average Daily Traffic Volume (ADT) is based upon the design carrying capacity of the bridge.

Water Quality Class	Average Daily Traffic Volume (ADT)	
	0-30,000	G.T. 30,000
ORW (within 1000 ft of shellfish beds)		***
ORW (not within 1000 ft of shellfish beds)	**	**
SFH (within 1000 ft of shellfish beds)		***
SFH (not within 1000 ft of shellfish beds)		**
SA	*	*
SB	*	*

*** The first one (1) inch of runoff from the bridge surface must be collected and routed to an appropriate stormwater management system or routed so that maximum overland flow occurs encouraging exfiltration before reaching the receiving body. Periodic vacuuming of the bridge surface should be considered.

** A stormwater management plan must be implemented which may require the overtreatment of runoff from associated roadways to compensate for the lack of direct treatment of runoff from the bridge surface itself. Periodic vacuuming should be considered. The use of scupper drains should be limited as much as feasibly possible.

* No treatment is required. The use of scupper drains should be limited as much as feasibly possible.

D. Golf Courses Adjacent to Receiving Waterbodies

Golf course construction and maintenance practices result in the potential for significant negative impacts from the runoff of sediments, pesticides, herbicides and other pollutants. For this reason, when golf courses are constructed adjacent to receiving waterbodies then the following practices are to be incorporated.

- (1) Minimum setbacks from the receiving waterbody of 20 feet for all manicured portions of the golf course (fairways, greens and tees) are required unless other acceptable management techniques are approved and implemented to mitigate any adverse impacts.
- (2) All drainage from greens and tees must be routed to interior lagoons or an equivalent stormwater management system.
- (3) To prevent the conversion of the stormwater system to critical area and to maintain positive drainage at high tides, all outfalls from the lagoon system must be located at an elevation above the critical area (if the discharge is to critical area) AND above the normal water elevation a distance to allow for storage of the first one inch of runoff. The volume which must be stored shall be calculated by multiplying the area of all the greens and tees by one inch. (Previously constructed stormwater management systems which meet all current and future storage requirements will not be required to modify outfalls.)
- (4) No greens or tees shall be located on marsh hummocks or islands unless all drainage can be conveyed to the interior lagoon system or to an equivalent onsite stormwater management system.
- (5) Stormwater impacts to freshwater wetlands shall be limited by providing minimum 20 foot buffers, or an accepted alternative, between manicured areas (fairways, greens and tees) and the wetlands. This minimum buffer must be increased if land application of treated effluent is utilized in the area.
- (6) An integrated pest management system designed in accordance with current best technology practices must be employed on the course to limit the application of chemicals which, if over applied, may leach into the ground and adjacent surface waters.
- (7) In accordance with S.C. Department of Health and Environmental Control requirements, a two (2) foot separation must be maintained between the surface of the golf course and the ground water table where spray effluent is applied.
- (8) The normal ground water elevation must be established by a registered engineer or soil scientist.
- (9) All projects which are within 1000 feet of shellfish beds must retain the first 1 1/2 inches of runoff as otherwise described in item A above.
- (10) If spray effluent or chemicals are applied to the turf via the irrigation system, all spray heads must be located and set so as to prevent any aerosols from reaching adjacent critical areas.

E. Mines and Landfills

Due to the significant amount of land disturbance involved in the construction of mines and landfills, these types of operations need to strictly adhere to sediment/erosion control

requirements particularly when they are located near coastal waterways. When mining or landfill projects are located within 1/2 mile of receiving waterbodies, pumping of ground water from sediment basins must be done with floating intakes only. Pumping of these basins must cease whenever the water levels come to within two (2) feet of the pond bottom. In addition, landfill planning must be designed on a comprehensive site basis for stormwater management and sediment/erosion control to include management practices for each separate cell as it is phased into the landfill.

F. Notice of Approval

All notice of approval must be in written form.